

## WEST Search History

DATE: Monday, October 31, 2005

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	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=AND</i>		
<input type="checkbox"/>	L2	cene	2010
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END OF SEARCH HISTORY

## Turner, Sharon

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**To:** STIC-DOCS; STIC-Biotech/ChemLib; STIC-CDB Access  
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Nature 359, 536-39, 1992

EMBO J., 14:918-26, 1995

J Cell Biol., 143:49-62, 1998

J. Biol Chem 275:30451-57, 2000

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USPTO Biotechnology 1649  
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ANSWER 8 OF 9 MEDLINE on STN

AN 83169247 MEDLINE

DN PubMed ID: 6300808

TI Evidence for a common precursor for alpha MSH and beta-endorphin in the intermediate lobe of the pituitary of the reptile *Anolis carolinensis*.

AU Does R M

NC AM-06363 (NIADDK)  
AM-18929 (NIADDK)  
AM-19859 (NIADDK)

SO Peptides, (1982 Nov-Dec) 3 (6) 925-35.  
Journal code: 8008690. ISSN: 0196-9781.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198305

ED Entered STN: 19900318  
Last Updated on STN: 19970203  
Entered Medline: 19830527

AB In order to investigate the biosynthesis of alpha MSH and beta-endorphin in a non-mammalian vertebrate, individual lizard intermediate pituitaries were incubated in complete medium containing a radioactive amino acid, using either a steady label or a pulse/chase protocol. Following incubation, acid extracts of the tissue were immunoprecipitated with either an NH2-terminal ACTH antiserum or a beta-endorphin antiserum and analyzed by sodium dodecyl sulfate polyacrylamide gel electrophoresis. After a 24 hr steady label in medium containing [3H]tyrosine, multiple molecular weight forms of beta-endorphin-related and NH2-terminal ACTH-related radioactivity were detected. The major peak of beta-endorphin-related radioactivity co-migrated with synthetic beta-endorphin(1-31); minor peaks of beta LPH-sized material and precursor-sized material were also detected. The major peak of NH2-terminal ACTH-related material co-migrated with synthetic alpha MSH; in addition, smaller amounts of material designated ACTH biosynthetic intermediate 1, ACTH biosynthetic intermediate 2, and precursor-sized material were detected. Sequential immunoprecipitation experiments revealed that the precursor-sized material had antigenic determinants for both alpha MSH and beta-endorphin. Pulse/chase experiments established that this material is the common precursor for alpha MSH and beta-endorphin. Based on gel filtration chromatography in 6 M guanidine HCl, the molecular weights of these various peptides are: common precursor, 23,300 daltons; ACTH biosynthetic intermediate 1, 12,200 daltons; ACTH biosynthetic intermediate 2, 4,200 daltons; alpha MSH, **1,500 daltons**; beta LPH, 8000 daltons; beta-endorphin, 3,400 daltons. None of the peptides precipitated with either antiserum incorporated [3H]glucosamine; thus glycosylation does not appear to be involved in this biosynthetic pathway in the lizard. The results of the kinetic experiments and molecular weight determinations indicate that the major biosynthetic pathway involves the following events: common precursor is first cleaved to yield ACTH biosynthetic intermediate 1 plus beta LPH; subsequently, beta LPH is cleaved to produce beta-endorphin; ACTH biosynthetic intermediate 1 is cleaved to produce ACTH biosynthetic intermediate 2 which is subsequently cleaved to produce alpha MSH. The pulse/chase experiments indicate minor pathways exist for cleaving beta-endorphin directly from the common precursor or via a high molecular weight form intermediate in size between the common precursor and beta LPH.

ANSWER 6 OF 9 MEDLINE on STN

AN 87231284 MEDLINE  
DN PubMed ID: 2884645  
TI Somatostatin 28(1-12) in a somatostatin-secreting human medullary thyroid carcinoma cell line.  
AU Aron D C; Hosta L P; Vargo E B; Andrews P C; Roos B A  
NC AM-18024 (NIADDK)  
AM-36116 (NIADDK)  
SO Peptides, (1987 Mar-Apr) 8 (2) 207-11.  
Journal code: 8008690. ISSN: 0196-9781.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198707  
ED Entered STN: 19900305  
Last Updated on STN: 19970203  
Entered Medline: 19870717  
AB We have identified a system, the TT human medullary thyroid carcinoma cell line, which we found to contain  $31.3 \pm 27.7$  ng of somatostatin 28(1-12) immunoreactivity/mg protein. Radioimmunoassay of gel filtration fractions showed that the major form of immunoreactive somatostatin 28(1-12) had a molecular weight of **1,500 daltons**. During reversed-phase high pressure liquid chromatography, this 1,500-dalton species coeluted with synthetic somatostatin 28(1-12). Somatostatin 28(1-12) containing forms larger than 7,000 daltons were also observed. Further studies will be required to elucidate the route of processing of prosomatostatin. The fact that the products of prosomatostatin processing in these cells are similar to those in normal tissues indicates that the TT medullary thyroid carcinoma cell line constitutes a useful model for human somatostatin gene expression.

ANSWER 2 OF 9 MEDLINE on STN

AN 91302384 MEDLINE

DN PubMed ID: 2071611

TI A congenitally abnormal fibrinogen (Vlissingen) with a 6-base deletion in the gamma-chain gene, causing defective calcium binding and impaired fibrin polymerization.

AU Koopman J; Haverkate F; Briet E; Lord S T

CS Gaubius Institute TNO, Leiden, The Netherlands.

NC HL-31048 (NHLBI)

SO Journal of biological chemistry, (1991 Jul 15) 266 (20) 13456-61.

Journal code: 2985121R. ISSN: 0021-9258.

CY United States

DT (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199108

ED Entered STN: 19910908

Last Updated on STN: 19970203

Entered Medline: 19910819

AB A congenitally abnormal fibrinogen (Vlissingen) was isolated from the blood of a young woman suffering from massive pulmonary embolism. Fibrinogen Vlissingen showed an abnormal clotting time with both thrombin and Reptilase. The release of the fibrino-peptides A and B by thrombin was normal, but fibrin polymerization was impaired both in the presence and absence of  $\text{Ca}^{2+}$  ions. On sodium dodecyl sulfate-polyacrylamide gel electrophoresis performed according to Laemmli the gamma-chain of fibrinogen Vlissingen showed two bands, one normal and one having an apparently lower molecular mass of about **1,500 daltons**. The previously described protective effect of  $\text{Ca}^{2+}$  ions on plasmin degradation of the carboxyl terminus of the gamma-chain of normal fibrinogen was only partially detectable in fibrinogen Vlissingen. In addition the binding of  $\text{Ca}^{2+}$  ions was decreased. Fibrinogen Vlissingen bound 2.4  $\text{Ca}^{2+}$  ions per fibrinogen molecule at pH 7.4, whereas normal fibrinogen bound 3.1  $\text{Ca}^{2+}$  ions. At pH 5.8 fibrinogen Vlissingen bound 1.1  $\text{Ca}^{2+}$  ions, whereas normal fibrinogen bound 2.0  $\text{Ca}^{2+}$  ions per molecule fibrinogen in the D-domains, again indicating a structural change in the carboxyl terminus of fibrinogen. The structural defect was determined by sequence analysis of DNA amplified by use of the polymerase chain reaction. Exons VIII, IX, and X of the gamma-chain gene were amplified and the DNA sequence of the amplified fragments was determined. A 6-base deletion was found in 50% of the fragments corresponding to exon VIII, indicating that the patient was heterozygous for the mutation. This deletion codes for amino acids Asn-319 and Asp-320 in the normal fibrinogen gamma-chain. The data indicate that Asn-319 and Asp-320 are crucial for maintaining the integrity of the carboxyl-terminal polymerization sites, the protective effect of  $\text{Ca}^{2+}$  ions on plasmin degradation of the carboxyl terminus of the gamma-chain, and the calcium binding domain at the carboxyl terminus of fibrinogen.

(FILE 'HOME' ENTERED AT 15:00:11 ON 31 OCT 2005)

FILE 'MEDLINE' ENTERED AT 15:00:19 ON 31 OCT 2005

L1	0 S CENE-E
L2	64 S CENE
L3	21651 S SDS-PAGE
L4	283 S L3 (20A) SERA
L5	8 S L4 AND DALTONS
L6	73 S 1.5 KDA
L7	0 S L6 AND SERA
L8	3 S SDS-PAGE AND L6
L9	9 S 1,500 DALTONS

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